

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Title	:	SYSTEM AND METHOD FOR USING VOICE OVER A TELEPHONE TO ACCESS, PROCESS, AND CARRY OUT TRANSACTIONS OVER THE INTERNET
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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. 1.131

This Declaration is submitted by the undersigned Michael A. Glenn who makes the following declaration based on information and belief of the facts involved:

1. The Declarant is a citizen of the United States of America. He resides at 3475 Edison Way, Suite L, Menlo Park, California 94025. His mailing address is 3475 Edison Way, Suite L, Menlo Park, California 94025.

2. The Declarant is a registered Patent Attorney, Reg. No. 30,176.
3. The Declarant represents the Applicant in the above-indicated Patent Application Serial No. 09/532,509.
4. Claims 9-22 are rejected under 35 U.S.C. § 102(e) in view of United States Patent No. 6,510,417 to Partovi *et al.* (hereinafter referred to as “Partovi”). Partovi was filed on October 22, 1999 and therefore is prior art under 35 U.S.C. § 102(e) as of October 22, 1999. Partovi does not claim the same invention as those set forth in Claims 9-22. To avoid Partovi as prior art under 35 U.S.C. § 102(e), the Applicants must show “conception of the invention prior to the effective date of [Partovi] coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application,” see 37 C.F.R. § 1.131(b).
5. The Declarant and the Applicant made an exhaustive search of the Applicant’s records to obtain evidence relating to the date of conception of the invention and relating to the Applicant’s diligence in reducing the invention to practice
6. The search produced documentary evidence demonstrating the conception of the claimed invention as early as September 17, 1999. The documentation is attached herein as Exhibit A and is entitled “Quackware Voice Portal Functional Requirements”.

7. Exhibit A bears a date of September 17, 1999. The portions of the document which are free of any markings were prepared as of September 17, 1999.
8. Exhibit A also bears a second date of March 26, 2001. The second date is marked with a vertical line in right margin of the document and marked with an underline. This marking is consistent with markings used by document editing software tools, such as Microsoft Word's "Track Changes" feature. Such editing tools indicate revisions made to a document with underlining and include a vertical bar in the right margin next to portions of the document that have been changed from the original version. Likewise, the portions of the documents which lack these markings are the original portions of the document.
9. For the purpose of this Declaration, the Declarant refers only to those portions of Exhibit "A" that are part of the original document which do not include vertical bars or underlined information. Accordingly, the Declarant refers only to original information memorialized on or before September 17, 1999.
10. The pending Claims, in their current form, are clearly enabled by the original portions of Exhibit A. A claims chart is attached herein as Exhibit "B" to show the pending claims mapped to the disclosure of Exhibit "A".

11. Accordingly, Exhibit "A" provides evidence showing that the Applicant conceived of the claimed invention prior to October 22, 1999.

12. Between September 17, 1999 and March 21, 2000, the Applicants were actively engaged in diligently reducing to practice the invention as broadly disclosed and claimed in the above-identified patent application. The Applicants' diligence is memorialized in the originally filed specification, drawings, and claims, filed on March 21, 2000.

13. These statements are made with knowledge that willful false statements are punishable by fine and/or imprisonment under 18 USC 1001, and that any such willful false statement may jeopardize the validity of this application or any patent resulting therefrom.

Date:



Michael A. Glenn

Reg. No. 30,176

EXHIBIT A

Quackware Voice Portal Functional Requirements

March 26, 2001~~September 18, 1999~~

CTO/CSA Edits Only

CMO Comments 9-17-99



This document captures the functional requirements for the Quackware Voice Portal (QVP) system.

This document specifies the functional requirements for the Quackware Voice Portal (QVP) system. The requirements are organized by functional area.

While most requirements listed in this document are intentionally generic (i.e. meant to be applicable to a range of possible vertical applications), those which are specific to a particular vertical application are specified as such. This document is the Software Requirements Document specified in the Quackware Documentation Overview and Guide and is owned jointly by the CTO and the Chief Software Architect. All edits necessarily go through those individuals.

1 User Interface Requirements

<describe overall model of finding items (Existants — anything that we provide access to) and getting information about items>

1.1 Configuration and User Access

<describe philosophy that users may or may not be subscribed to QVP in advance>

1. The user may use the Quackware Voice Portal without pre-subscription.
2. The user may specify profile information, including addresses and credit card numbers, upon subscription. What your assumptions here: via QVP, web, human operator?
3. The user will specify a personal numeric password for transactions requiring authentication (e.g. purchasing or bidding).
4. The user will be identified by a phone number, either spoken or determined via caller ID.
5. The user may modify personal information, such as addresses and credit card numbers. Same assumptions as #2. QW will verify credit card information in real time. (exact name, billing st. address, zip, CC#, exp date) to ensure accounts are set up accurately.
6. The system will provide the user will shortcuts to commonly used functions.

1.2 Item Selection

<describe philosophy on funneling and data presentation>

1. The user may specify the domain of interest (e.g. e-commerce, traffic information, weather information, movies, etc.).
2. The user may choose an item (e.g. a book, a toy, a route of interest for traffic information, a city of interest for weather information, etc.) by specifying (possibly partially) attributes of the item.
3. The user will be provided with detailed information for an identified item, appropriate to the domain of the item (e.g. products, traffic, weather, movies, etc.). Specifically:
 - E-commerce: reviews, vendor information including pricing, shipping costs and availability.
 - Movies: directory, producer, cast, etc.
 - Auctions: outstanding bids.

4. The user may request information by locale (e.g. the nearest vendor for an identified product, the nearest theater for a movie). Ideally with multiple ways they can identify a locale (zip, town name, city area "Boston North, West etc.)
5. The user will be provided with the date and time on which information was last updated. (If requested)
6. All data presented to the user will be of currency appropriate to the domain.
7. The user will be provided with information for any item offered by a supported data source. This is unclear to me - please explain.
8. The user will be informed of the source of the information ("provided by XXXXX")
9. A "help" or "instructions" option will be available at every selection point
10. The user can request a listing of all possible choices at any selection point.

1.3 Item Comparison

<describe philosophy on relatedness and comparison>

1. The user may request item comparisons based on item attributes, as appropriate to the domain.
2. The user may request identification of better, cheaper and related items, as appropriate to the domain.

1.4 Transactions

<different transactions (bid/watch/buy/track) are appropriate to different domains; section is divided by domain>

1.4.1 E-Commerce Domain

1. The user may order an identified product from a chosen vendor.
2. The user may add an item to a shopping cart for purchase at a later time.
- 2.3. The user may specify, when ordering, a billing credit card and shipping address (from user profile or manually). Is "manually" via human operator?
- 3.4. The user may request status information for previously ordered products.

1.4.2 Auction Domain

1. The user may increase existing bids.
2. The user may place bids on new auctions.

1.5 User Input (IVR only)

1. The system shall use word-based automatic speech recognition (ASR) for accepting user input wherever possible.
2. The system shall use spelling-based ASR for accepting user input when word-based ASR is not possible.
3. The system shall use keypad entry for accepting user input only when no other option is feasible.

1.6 Item Lists, Monitoring and Notification

1. The user may explicitly record items in named lists, as appropriate to the domain. I don't understand this
2. The user may review items from their lists.
3. The user may request phone or email notification of information changes (appropriate to the domain) for items on their lists.

2 Virtual Database Requirements

Quackware's virtual database technology is designed to deliver information garnered from the web to our customers in a timely and highly utilitarian way.. Quackware's philosophy is that people need and use information in a variety of settings and ways, and we wish to support this on a variety of platforms including but not limited to the phone (voice, WAP and both), the web, and portable connected computing devices (Pvii, WinCE, etc).

This section provides an outline of features that will be implemented in Quackware's backend database service support.

2.1 Data Collection

1. The system shall collect data from supported sources at regular intervals to be scheduled for particular item types and/or sites.
2. The system shall detect changes to data source sites and notify the appropriate site rule maintainer.
3. The system shall support non-expert definition of data extraction for data sources.
4. The system shall support evolutionary development of data extraction for data sources.

2.2 Fusion

1. The system shall correctly identify identical items from different vendors.
2. The system shall retain meta data about the source of all information.
- ~~2.3.~~ The system shall support interactive clarification of fusion decisions or non-decisions in cases where certainty can not be determined automatically.
- ~~3.4.~~ The system shall support additions of new data types and data elements, without code change, provided they are not part of a limited top-level set in Quackware's hierarchy.
- ~~4.5.~~ The system shall support domain-specific concepts of relatedness that will to a large extent be identified through market research/trial/opportunity.
 - E-commerce: cheaper, better, often-bought-with, most-popular, etc
 - Movies: related movies and products, best movies in a category, most popular, best by reviewer, etc.
6. The system shall collect and retain related information necessary to provide additional detail about an item (e.g product descriptions)

3 Advertising Requirements

<describe advertising philosophy: utility = f(availability, relatedness to current item (e.g. DVD w/ TV), relevance to user (e.g. by demographic), desirability to advertiser, value to Quackware (e.g. based on cost/return))>

1. The system shall provide an initial general advertisement or sponsorship message to all callers
1. The system shall provide targeted audio advertisements to users, chosen based on a utility function appropriate to the domain. (IVR interface)
The system shall have the capability to provide a secondary message with more detail upon request (verbal click-through).
2. The system shall provide targeted banner advertisements to users, chosen based on a utility function appropriate to the domain. (WWW interface)
3. The system shall provide selectable permission-based advertisements to users I don't understand this
4. The system shall keep a record of all advertisements served to users, including successful (complete) and unsuccessful (incomplete) deliveries. This feature will need to be auditable and may be composed entirely or partially from off-the-shelf components or facilitated through a click-auditing partner.
5. Advertisements shall be targeted by domain, or caller location.

4 Customer Management

In order to continually add value and transition *with customers* from one platform to another (for example from the phone to the web, or from the phone to WAP), it is in our interests to support personalization features to improve customers experience with our services. In addition to personalization, other sources of stickiness (customers sticking with Quackware in light of inevitable competition) include the support of community features such as networks of friends or of folks with common interests.

In order to support any adaptation of service (or advertising) to customer behaviour, it is to our advantage to track customer use of Quackware services. This should be seen as a basic requirement of all services. In support of this, coordination needs to be created between front-end interaction support (for example, in the Quackware Speech Layer). Services and a logging mechanism. Early versions of this can be necessarily simple as long as we identify an appropriate way of tracking use early.

Further in the area of interface evaluation, typical customer explorations of our interface hierarchies can help us identify problem areas (options never exercised for example), or very useful areas, or correlated sets of sub-features in single sessions. A example of an important attribute to include would be timing — for example, in the QSL the use of barge-in can signify a more advanced user and a string of barge-in selections to a single sub-tree repeatedly for a specific customer can be a great opportunity for a short-cut — either a general one, or possibly a customer-specific one.

A critical aspect of stickiness is adaptation of services to a customer's preferences. While this can include relatively simple features such as customer information retention in support of non-repetitive sign-up or purchasing data-entry requirements, it can also include preferences for navigation of particular sub-trees of interaction in different front-ends, and preferences for service/vendor ordering or selection. As an example of vendor preference or ordering, one option for pricefone feature is preferred vendor — thus allowing us to limit a list of vendors for a found product to two: cheapest and preferred. There are other alternatives, but this shows a successful tradeoff of cheap browsing elimination and successful limitation of the problems of speech-based list navigation for long lists.

The customer database and the advertising database are clearly highly related as careful tracking of advertisements to consumers and consumer requests for advertisements are the core of our business model (see also advertising database requirements).

1. The system shall record all user transactions, for both subscribed and unsubscribed users.
2. The system shall record items that the user locates in a history list.
3. The system shall use passive means for customer identification whenever possible.
4. The system will maintain customer preferences appropriate to each supported domain.

5. The system will update customer data from data sources dynamically. Specifically:
 - Auctions: current bid status updated on user request.
6. The system will present user data with currency appropriate to the domain. Specifically:
 - Auctions: bids are always current to within seconds.
 - E-commerce: pricing information is current when purchase price is presented.
7. The system shall derive customer behavior statistics by demographic.
8. At no time shall individual customer information associated with a particular customer by any unique identifying characteristic be used without the customer's permission outside of Quackware, Inc.
9. Customer information will be secured and carefully controlled from unauthorized access.

EXHIBIT B

Claim 9	Evidence of Prior Conception
A voice-controlled transaction service adapted to process transactions over the Internet, the service comprising	Exhibit A, Page 6, Section 2, "Virtual Database Requirements"
a user interface; and	Exhibit A, Page 3, Section 1.1, "Configuration and User Access"
at least one database coupled to the user interface, the user interface coordinating voice communications with a user, the voice communications including item or service information and transactions associated with the item or service, the at least one database storing item and service information;	Exhibit A, Page 6, Section 2, "Virtual Database Requirements"; Section 2.1, "Data Collection"; Section 2.2, "Fusion"
whereby transactions are executed without the user pressing a button, clicking a mouse, or any other manual input to a computing device.	Exhibit A, Page 6, Section 2, "Virtual Database Requirements"
Claim 10	Evidence of Prior Conception
The service of claim 9, further comprising a network interface coupled to the at least one database, the network interface being configured to access the item and service information over the Internet, process requests related to the item and service information, and carry out transactions involving the identified item or service.	Exhibit a, Page 6, Section 2, "Virtual Database Requirements" ("Quackware's vitrual technology is designed to ... support ... a variety of platforms including but not limited to the phone (voice, WAP and both, the web, and potable connected computing devices"; Exhibit A, Section 2.2, "Fusion" ("The system shall collect and retain related information necessary to provide additional detail about an item (e.g. product descriptions).
Claim 11	Evidence of Prior Conception
The service of claim 10, further comprising a fusion engine configured to compare information obtained from at least one web site and selectively establish canonical data files corresponding to information gathered from multiple web sites.	Exhibit A, Page 4, Section 1.3, "Item Comparison", Page 6, Section 2.2, "Fusion"

Claim 12	Evidence of Prior Conception
<p>The service of claim 9, further comprising a customer manager configured to record user information associated with user preferences and user behavior related to the service.</p>	<p>Exhibit A, Page 6, Section 2.1, "Data Collection"; Page 8, Section 4, "Customer Management"</p>
Claim 13	Evidence of Prior Conception
<p>The service of claim 12, wherein the customer manager is configured to provide user information to the user interface such that the user interface may personalize the service for particular users.</p>	<p>Exhibit A, Page 6, Section 2.1, "Data Collection"; Page 8, Section 4, "Customer Management"</p>
Claim 14	Evidence of Prior Conception
<p>The service of claim 9, further comprising an advertising subsystem configured to selectively provide the user interface with advertisements.</p>	<p>Exhibit A, Page 7, Section 3, "Advertising Requirements"</p>

Claim 15	Evidence of Prior Conception
The service of claim 14, wherein the advertising subsystem provides the user interface with advertisements targeted to particular users based on information about the user.	Exhibit A, Page 7, Section 3, "Advertising Requirements"
Claim 16	Evidence of Prior Conception
The service of claim 9, further comprising an existant subsystem coupled to the at least one database, the existant subsystem being configured to manage all information into and out of the at least one database.	Exhibit A, Page 6, Section 2.1, "Data Collection"; Page 8, Section 4, "Customer Management"
Claim 17	Evidence of Prior Conception
A service for providing access to Internet-based information and execution of Internet-based transactions where the user communicates with the service using voice over a telephone, the service comprising:	Exhibit A, Page 6, Section 2, "Virtual Database Requirements"

means for providing information identifying an item or a service and providing a query as to a transaction to be performed which is related to the identified item or service; and	Exhibit A, Pages 3-4, Section 1.2, "Item Selection", Section 1.4.1, "E-Commerce Domain"
means for sending to a server system a request to execute the transaction related to the identified item or service in response to a user answer to the provided question.	Exhibit A, Pages 3-4, Section 1.2, "Item Selection", Section 1.4.1, "E-Commerce Domain"
Claim 18	Evidence of Prior Conception
The service of claim 17, further comprising means for retrieving information identifying an item or a service from a database.	Exhibit A, Page 6, Section 2.1, "Data Collection"
Claim 19	Evidence of Prior Conception
The service of claim 18, wherein the means for retrieving information identifying an item or a service from a database comprises means for retrieving information from the Internet.	Exhibit a, Page 6, Section 2, "Virtual Database Requirements" ("Quackware's vitrual technology is designed to ... support ... a variety of platforms including but not limited to the phone (voice, WAP and both, the web, and potable connected computing devices"; Exhibit A, Section 2.2, "Fusion" ("The system shall collect and retain related information necessary to provide additional detail about an item (e.g. product descriptions).

Claim 20	Evidence of Prior Conception
<p>A computer program product comprising computer readable program code for execution a transaction related to an item or a service using a communication device, the program code in the computer program product comprising:</p>	<p>Exhibit A, Page 6, Section 2, "Virtual Database Requirements"</p>
<p>first computer readable program code for providing information identifying the item or the service;</p>	<p>Exhibit A, Page 6, Section 2, "Virtual Database Requirements"; Section 2.1, "Data Collection"; Section 2.2, "Fusion"</p>
<p>second computer readable program code for providing a query as to a transaction to be performed related to the identified item or service; and</p>	<p>Exhibit A, Page 6, Section 2.1, "Data Collection"</p>
<p>third computer readable program code for sending to a server system a request to execute the transaction related to the identified item or service in response to the user response to the query, whereby the transaction is executed without the user performing a manual action.</p>	<p>Exhibit A, Pages 3-4, Section 1.2, "Item Selection", Section 1.4.1, "E-Commerce Domain"</p>

Claim 21	Evidence of Prior Conception
<p>The computer program product of claim 20, further comprising fourth computer program code for gathering information from the Internet.</p>	<p>Exhibit a, Page 6, Section 2, "Virtual Database Requirements" ("Quackware's vitrual technology is designed to ... support ... a variety of platforms including but not limited to the phone (voice, WAP and both, the web, and potable connected computing devices"; Exhibit A, Section 2.2, "Fusion" ("The system shall collect and retain related information necessary to provide additional detail about an item (e.g. product descriptions).</p>
Claim 22	Evidence of Prior Conception
<p>The computer program product of claim 20, further comprising a fifth computer program code for performing comparisons between a plurality of transactions in order to chose an optimal transaction.</p>	<p>Exhibit A, Page 4, Section 1,3, "Item Comparison", Page 6, Section 2.2, "Fusion"</p>